MEDIA CONVERTER TECHNICAL SPECIFICATIONS

Case dimensions	3.9" x 3.0" x 1.0"	(99mm x 76mm x 25mm)
Maximum number of media converters in series:	Two (2)	
Environment	Temperature:	0-40°C (32° to 104° F)
	Humidity	10-90%, non condensing
	Altitude	0-10,000 feet
Warranty	Lifetime	

Power Supply Requirements Replace power supply with only the equivalent input rating (see below) and output rating (regulated 9VDC at 0.5 A).

TN PN	Requirement	Location
3517	240 volts, 50 hertz	United Kingdom
3516	230 volts, 50 hertz	Europe
3518	120 volts, 60 hertz	USA/Canada/Mexico
3514	100 volts, 50-60 hertz	Japan
3515	240 volts, 50 hertz	Australia

Compliance Information

UL Listed
C-UL Listed (Canada)
CISPR/EN55022 Class A

FCC Regulations

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at the user's own expense.

Canadian Regulations

This digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out on the radio interference regulations of the Canadian Department of Communications.

European Regulations

Warning

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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TRANSITION
networks

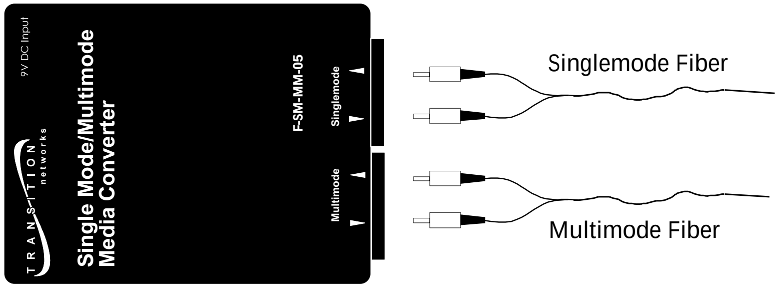
10Mb/s Ethernet™ OR 16Mb/s Token Ring

Single Mode/Multimode Media Converter

F-SM-MM-05

USER'S GUIDE

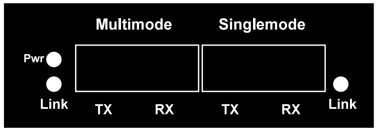
The protocol-independent TRANSITION Networks media converter, F-SM-MM-05, is designed for installation EITHER in a 10Mb/s Ethernet environment OR in a 16Mb/s Token Ring environment.



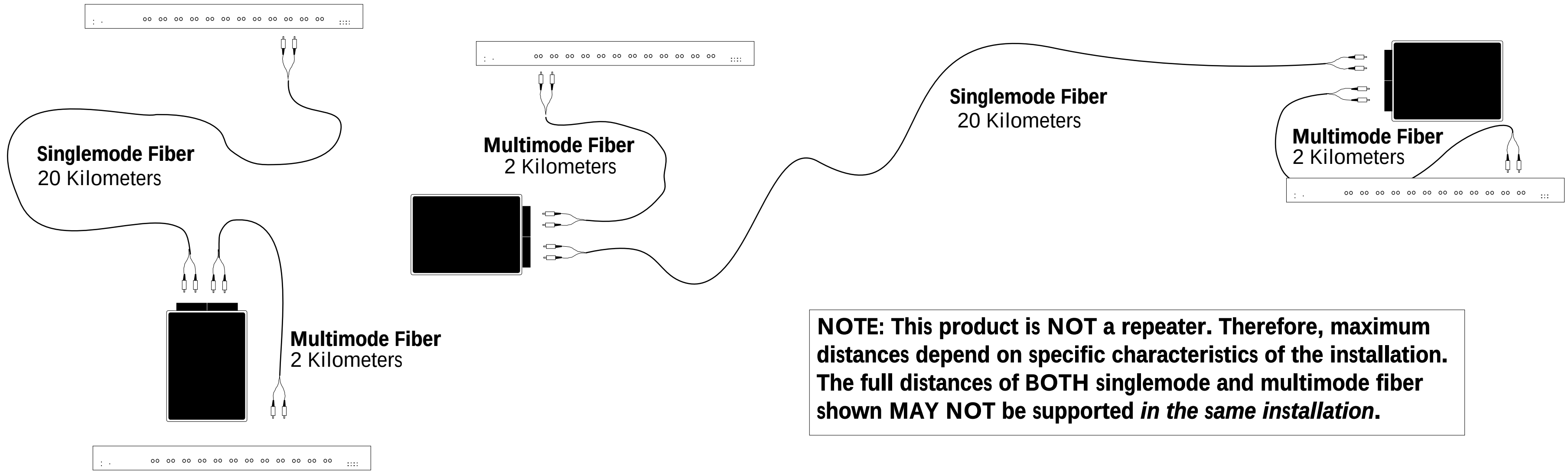
The F-SM-MM-05 media converter provides an **ST** fiber RX (receive) and TX (transmit) connector to *1300nM singlemode* fiber-optic cable and an **ST** fiber RX and TX connector to *850nM multimode* fiber-optic cable. Fiber's low signal loss and high resistance to radio frequency noise allow extended distances between devices (up to 2 kilometers for multimode, up to 20 kilometers for singlemode).

The media converter functions in half-duplex mode or, when connected to devices capable of full-duplex connectivity, in full-duplex mode.

Status LEDs on the connector side of the media converter provide the following information:



Pwr	(Power) Illuminated green LED indicates connection to external AC power.
Link	Steady green LED indicates that fiber link is connected properly.



NOTE: This product is NOT a repeater. Therefore, maximum distances depend on specific characteristics of the installation. The full distances of BOTH singlemode and multimode fiber shown MAY NOT be supported *in the same installation*.

Installation Notes

- Connect the power supply cable to the media converter BEFORE connecting to the outlet.
- Install unit with PSU provided. (Output 9 VDC regulated, 500 mA).

Fiber Optic Cable Specifications

SINGLEMODE	
Fiber Optic Cable Recommended:	9/125 µm singlemode fiber
Fiber Optic Transmitter Power:	Average: -16 dBm
Fiber Optic Receiver Sensitivity:	Average: -33 dBm
Wavelength:	1300nM
Bit error rate:	$\leq 10^{-9}$
Maximum Cable Distance:	5-20 kilometers
MULTIMODE	
Fiber Optic Cable Recommended:	62.5 / 125 µm multimode fiber
Optional:	100 / 140 µm multimode fiber 85 / 125 µm multimode fiber 50 / 125 µm multimode fiber
Fiber Optic Transmitter Power:	Average: -15 dBm
Fiber Optic Receiver Sensitivity:	Average : -33 dBm
Wavelength:	850nM
Bit error rate:	$\leq 10^{-10}$
Maximum Cable Distance:	2 kilometers (6,600 feet)

Troubleshooting the Media Converter

If the singlemode to multimode fiber-optic media converter fails, ask the following:

1. Is the power LED on the media converter illuminated?

NO

- Is the power adapter the proper type of voltage and cycle frequency for your AC outlet? NOTE: Refer to the "Power Supply Requirements" on the back page.
- Is the power adapter properly installed in the media converter and in the outlet?
- Contact Technical Support at (800) 260-1312/ (800) LAN-WANS.

YES

- Proceed to step 2.

2. Is the multimode fiber Link LED illuminated?

NO

- Check fiber cables for proper connection.
- Verify that TX and RX cables on media converter are connected to RX and TX ports, respectively, on the other device.
- Refer to Tech Tips available at: http://www.transition.com
- Contact Technical Support at (800) 260-1312/ (800) LAN-WANS.

YES

- Proceed to step 3.

3. Is the singlemode fiber Link LED illuminated?

NO

- Check fiber cables for proper connection.
- Verify that TX and RX cables on media converter are connected to RX and TX ports, respectively, on the other device.
- Refer to Tech Tips available at: http://www.transition.com

YES

- Contact Technical Support at (800) 260-1312/ (800) LAN-WANS.